To: WUE Subcommittee and other interested stakeholders

From: Scott McCreary and Eric Poncelet
CONCUR, Inc.

Date: October 28, 2002

Re: Draft Terms of Reference—WUE Science Review Panel

Cc: Tom Gohring
Program Manager, CALFED WUE Element

Attached is a draft Terms of Reference describing the purpose and likely composition of the proposed Water Use Efficiency (WUE) Element Science Review Panel. The purpose of the WUE Science Review Panel is to provide overarching review of program strategies, plans, and special issues of strategic importance for the WUE Element.

This draft Terms of Reference document will be considered at the November 5th, 2002 WUE Subcommittee meeting. Please review the attached materials carefully and be prepared to present any comments or feedback and to discuss next steps.

We look forward to your participation and input.

WUE SCIENCE REVIEW PANEL

TERMS OF REFERENCE

For review at 11/5/02 WUE Subcommittee meeting

PURPOSE:

The CALFED Bay-Delta Program is convening a standing Scientific Review Panel to provide overarching review of program strategies, plans, and specific issues of strategic importance for the Water Use Efficiency (WUE) Element.

BACKGROUND:

The CALFED Bay-Delta Program is a cooperative effort among state and federal agencies and the public to ensure a healthy ecosystem, reliable water supplies, good quality water, and stable levees in California's Bay-Delta system. The Water Use Efficiency Program is one of several Program elements CALFED is implementing through an integrated approach.

In its August 2000 Record of Decision, CALFED established the Science Program. Its purpose is to "provide a comprehensive framework and develop new information and scientific interpretations necessary to implement, monitor, and evaluate the success of the CALFED Program (including all program components), and to communicate to managers and the public the state of knowledge of issues critical to achieving CALFED goals."

The ROD further recommends that individual program elements such as the WUE element convene their own independent science panels, either as standing bodies or on an as needed basis, to "help ensure the best investments are being made and results are being achieved, as well as form strategies to reduce scientific uncertainties."

OBJECTIVES, MISSION, AND GUIDING PRINCIPLES:

The primary objectives of WUE Science efforts are to: 1) support and inform sound decisions; 2) verify results of actions; 3) foster appropriate adaptive management measures; and 4) integrate WUE science activities with those of other CALFED Elements where appropriate.

The mission of the WUE Science Review Panel is to review the methods, data, and results of WUE Science activities and to coordinate, as appropriate, with the CALFED Science Program and science review panels convened to support other CALFED Elements.

In carrying out its work, the WUE Science Review Panel will seek to better understand the various causalities – physical, behavioral, institutional, economic, biological and

chemical – expected to impact WUE implementation. This will necessitate a likely focus on the following components of the WUE element:

- Methods for monitoring, data collection, and data analysis of water conservation and recycling projects.
- Results of WUE monitoring.
- WUE research priorities.
- Past and projected WUE Program performance (WUE performance measures[1]).
- Quantifiable objectives.
- Proposal Solicitation Process criteria and scientific review.
- Integration with the broader CALFED program.
- Program design, implementation strategies, and relevance to stakeholder communities.
- Other issues as identified by the Panel or Program Manager.

This initiative – to be launched in 2003 – is guided by several key principles:

- **Review-focused.** As is the case for the CALFED Science Program, the WUE Science Review Panel will not be directly involved in making policy or funding decisions. Rather, its function will be to review ongoing and proposed WUE program activities. It will work to ensure that the WUE Element incorporates the best available knowledge into decisions. It will also work toward narrowing scientific uncertainties, advancing the application of better knowledge, and forwarding the debate.

- **CALFED-wide science integration.** The development of applicable and sound science to support and guide CALFED activities will require effective coordination and integration of scientific activities among CALFED's various Program Elements.

- **Open process with stakeholder involvement.** CALFED's Record of Decision calls for WUE science activities to be conducted in an open and collaborative manner to allow and encourage involvement of and input from stakeholder and academic science communities. Consequently, the WUE Science Review Panel's deliberations will be conducted in public. Additionally, CALFED-convened, stakeholder groups representing diverse agricultural, environmental and agency interests will serve as a sounding board regarding Panel design, recruitment, and intended outcomes of panel deliberations.

- **Balance and neutrality in Panel recruitment.** The WUE Science Review Panel--like all CALFED standing science boards or panels--will strive for balance between local and outside knowledge, relevant disciplines, academic/private sector/regulatory agency scientists, gender and ethnicity. Scientists with perceived attachments to stakeholder groups or regulatory activities in the regulatory agencies will not, *a priori*, be excluded from the Panel. But the

[1] Performance measures represent estimates of WUE costs and benefits (e.g. volume water conserved), including past performance (post-ROD) and projections of likely future performance.

individuals chosen must have exceptional reputations for maintaining a balanced view.

- **Legitimacy and accountability.** To ensure that WUE Science Review Panel activities are credible and result in advice useful to CALFED and accepted by stakeholders, it is essential that the Panel's composition and work be structured to foster legitimacy, accountability and neutrality. Accordingly, the Panel selection process and operating procedures below incorporate key elements–meaningful stakeholder involvement, criteria to guide panelist and technical advisor selection, and deliberations in public–that are intended to facilitate such an atmosphere.

SCOPE OF WORK/DUTIES:

The duties of Science Review Panel members will include:

1. Bring detailed expertise to bear on scientific issues of concern to the CALFED WUE Element. This may include: identifying / prioritizing critical issues; proposing and participating in workshops on critical subjects; working with the WUE Program Manager to help identify critical strategic questions and cross-program linkages; and proposing subjects for white papers, reviews, or studies that are critical to CALFED WUE goals.

2. Coordinate with the CALFED Science Program and other CALFED Program Science Panels on issues involving cross-program linkages.

3. Review (or obtain reviews for) documents, proposals describing major WUE initiatives, the annual planning process for specific actions, and the mission, goals, and performance of the WUE Element.

4. Advise individually, or via participation in review committees or workshops, on specific technical questions that arise as research and monitoring aspects of the WUE Element evolves.

5. Analyze existing data related to specific actions or programs, as relevant to reviews or advising described above. Where not in conflict with consulting roles, conduct or lead studies relevant to accomplishing CALFED WUE goals.

6. Analyze stakeholder responses to WUE initiatives.

PANEL ORGANIZATION:

Panel Size and Areas of Expertise

The WUE Element intends to recruit 4-6 nationally and / or internationally recognized experts specializing in one or more of the following primary areas: 1) agricultural water

use efficiency, 2) urban water use efficiency, 3) ecology, 4) economics, and 5) the social sciences. These experts will collectively provide scientific and technical expertise in the following disciplines: engineering, hydrology, hydraulics, recycling, resource economics, statistical analysis, public policy, and public outreach. Moreover, the fully constituted panel is expected to be familiar with and able to integrate issues related to water quality, water supply reliability and ecosystem restoration.

Selection Process and Criteria

CALFED Program staff/consultants will coordinate with the CALFED Science Program, other CALFED agencies, and stakeholders to establish selection criteria for and recruit 4-6 independent scientists to serve on the WUE Science Review Panel. Names of potential panelists will be solicited from the WUE Subcommittee and the CALFED Science Program. Ideally, a minimum of two of the WUE Science Review Panel members will also hold appointments as standing members of either the CALFED Science Board or other CALFED program scientific review panels.

Qualified panelists must have appropriate scientific expertise, be capable of accomplishing the stated duties, and meet the required selection criteria. These selection criteria may include all of part of the following:

- Extensive knowledge of the Bay-Delta watershed and Bay-Delta watershed issues;
- Extensive and/or intensive knowledge concerning Water Use Efficiency issues (as evidenced by long-term experience managing or promulgating science in the area of Water Use Efficiency, talks in scientific contexts, or substantial publications);
- Stature in the broad scientific community (as evidenced by invited talks, history of workshop participation, history of scientific leadership such as organizing sessions or conferences);
- A record of publication in peer reviewed scientific literature in the area of expertise identified;
- Experience managing environmental issues or advising top managers and promoting the use of science in water use efficiency;
- Ability to weigh issues in a balanced, objective manner, as reflected in the perceived willingness/ ability to integrate diverse viewpoints;
- Ability to work collaboratively and think across disciplines; and
- Availability throughout the duration of the appointment.

Panel Procedures and Terms:

The Panel is expected to be convened in 2003. It will meet approximately four times a year. Each panel member will serve for a four-year term with the possibility of re-appointment. Terms will be staggered to avoid gaps in institutional memory.

PANEL FACILITATION AND PUBLIC INVOLVEMENT

CALFED has engaged CONCUR, Inc. to facilitate the WUE Science Panel. Facilitation activities will include ensuring efficient and complete information flow between panelists, the WUE Subcommittee, and CALFED WUE staff; development of meeting agendas; and recording meeting outcomes and public comments. A broad range of stakeholders and other interested parties will be invited by CALFED to observe WUE Science Review Panel deliberations. The public will be given periodic opportunities to address the Panel. The staff of the Department of Water Resources, the Natural Resources Conservation Service, the State Water Resources Control Board, and the U.S. Bureau of Reclamation are also expected to participate in these meetings.